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NOTES ON THE BIRDS OF OKANOGAN CO., WASHINGTON.

Any mention of the *avifauna* of Okanogan Co. would be incomplete without a general statement of the physical conditions. Okanogan Co. is pre-eminently a mountain county, so that in an area almost equal to the State of New Jersey the only level spots are the usually narrow terraces or benches, of the Columbia, Okanogan, and tributary rivers. The climate varies from semi-arid in the south-eastern portion to very moist in the glacier-scored peaks of the north Cascades in the western part. The vegetation in turn passes from the sage-brush and bunch-grass of the terraces and foothills, through the pines of the lower ranges to the dense fir forests of the higher altitudes, above which the bare *aiguilles* tower. Thus it may be readily seen that the region is one of transition, receiving as it does the hardiest birds of the south-eastern sage-plains, besides an overflow from the Puget Sound region in the spring, and affording a summer home for birds which frequent higher altitudes.

The most important physical modification of this mountain county is Lake Chelan, which extends for a distance of sixty-five miles from the low sage hills of the east into the very heart of the wildest mountains of the Cascade Range. This provides a winter retreat for the hardier water-fowl.

The central station for the observations taken, is the town of Chelan, situated on a low terrace at the foot of the lake. The birds noted below represent all the species found under the head indicated, during a residence of fourteen months in Okanogan county.

SUB-FAMILY TETRAONINAE, GROUSE.

SOOTY GROUSE. *Dendragapus obscurus fuliginosus*.—The spring-bird of the lower foot-hills. They appear to move down from their winter home in the fir trees of the higher slopes, during the last week of March. At this time, and, indeed, until after the breeding season, they are quite unwary. The males, especially, appear so engrossed in their sole occupation of hooting, that they may be easily approached, and studied at close range—say thirty feet, if one is lying on the ground. One such I spied

on the first day of April, 1896. He was on a ridge about a hundred yards away, strutting and parading like a turkey cock, in plain view. As I sneaked up within a few yards of him, he became more subdued, and stood, for the most part, quietly in the grass, with his neck inflated like a pouter pigeon's. One could see the volume of air, alternately increase and diminish as he gave his muffled "Hoot, hoot, hoot, tu-hoot, tu-hoot." This was not necessarily accompanied by any show of neck ornaments, but when he became vehement, as when he spread his fan-shaped black tail for a strut, the inflation of the throat increased to such an extent as to disclose a considerable bare spot on each side of his neck, surrounded by a large, white ring of feathers. This certainly made a stunning feature of the gallant's attire; for nature has provided that the feathers immediately about the bare spot shall have extensive white bases below the sooty tips. Ordinarily the upper feathers completely conceal the bald spot, of which the fellow is so vain, so that during excitement, a brilliant, white circlet of feathers some five inches across, flashes forth from each side of the bird's neck, as the upper feathers are raised and reversed. When I tired of studying his vanity, I mocked his hoot repeatedly; he lowered his head with some show of hostility, but did not attack.

While this was going on another cock was to be heard at some distance and his calls were apparently being answered by a low monosyllabic "*tool*" of the hen. This cry was repeated at somewhat greater intervals than those of the cock. Of course the hooting sound is made in the windpipe, but the inflated throat acts as a sounding-board. The large, triangular syrinx could be made to give forth a sound very much resembling the bird's efforts, by simply blowing at the proper intervals through the entering windpipe, and placing the thumb and fore-finger partly over the aperture.

A set of eight eggs of this species was discovered on May 5th, by Mrs. W. L. Dawson, and their situation is described as follows: The eggs were deposited on the ground beneath a service-berry bush, which sprang from a chance level spot on an otherwise sharp hillside. There had been no apparent attempt at nest-building, as the eggs lay upon nothing but the few fallen leaves of the bush, and these had not even been scratched together. The only cover afforded the bird was the general protection of the tall bush. The eggs were of characteristic type, except that they were unusually small. Three specimens measured 1.72 x 1.28, 1.78 x 1.30 and 1.78 x 1.33.

When the young are nearly full grown, the flock begins to retire slowly

up the mountain sides, until by the middle of fall they are to be found only on the higher ridges. Those, however, whose winter homes are in the highest western ranges, do not seem to have so much latitude of movement. On August 5th, I encountered a brood of full grown young on Wright's Peak, at an altitude of 7000 feet : and although the winter snows still clung in patches to the mountain-sides about them, I have no reason to suppose that they were raised more than half a mile away.

FRANKLIN'S GROUSE, *Dendragapus franklinii*.—Not nearly so common a bird as the last. It does not apparently range so low as the Sooty Grouse in any given section, where both are found ; nor on the contrary, I suspect, is it to be found about the higher peaks.

On the 28th of April, 1896, I found a nest of this bird at an altitude of about a thousand feet above Lake Chelan. It was placed in the tall grass, which clothed the side of an inconspicuous "draw" bottom, and although the plough had recently turned up the soil within five feet of her, the mother bird clung to her post. I took several "snap shots" of her at close range, and she allowed me to advance my hand to within a foot of her, when she stepped quietly off the eggs and stood looking back at me over her shoulder. The nest was a depression in the gravel-filled soil, lined with grass and dry corn leaves, besides a few stray feathers : depth 3 inches, width 7 inches. The seven eggs are unusually large : 1.98x1.83 and 1.94x1.35 are the measurements of two average eggs of the set.

OREGON RUFFED GROUSE, *Bonasa umbellus sabini*.—The differentiation of the sub-species of the Ruffed Grouse is not at all clear in this region. In any case the range and habit of the local species is nearly like that of the eastern bird, inasmuch as it frequents copses, springs and river bottoms at low altitudes. One hardly knows when he hears a sharp, rapid, "Dsek, dsek, dsek, desk" close at hand in the brush, whether he has started up a "pheasant" or a red squirrel.

WHITE-TAILED PTARMIGAN, *Lagopus leucurus*.—This species is reported as not uncommon in the higher altitudes. I met with them once on the barren summit of Wright's Peak, at an elevation of about 9,000 feet. So far from deserving the name of "fool hens," applied to them in the winter season, when they may be readily approached, these ptarmigan, in August were excessively afraid and absolutely unapproachable ; although it is certain they had never seen a human being before. One, upon sighting me at fifty yards, squawked in extreme terror and whirled away at a wonderful pace.

COLUMBIAN SHARP-TAILED GROUSE, *Pediocaetes phasianellus columbianus*.—The common bird in open situations which yet afford copses and

cover—an invariable accompaniment of stubble fields and a habitue of grain-stacks. Although bred to a terrestrial life they are quite at home in the branches of a willow or alder sapling. Indeed, from the frequency with which I have met them in such situations in the evening and at early morning, I have even suspected that they sometimes roost so.

SUBORDER CYPSELL. SWIFTS.

BLACK SWIFTS, *Cypseloides niger*.—These erratic and almost uncanny creatures appeared at Chelan several times during the summer of 1895. The birds would come in a straggling flock along about 7 o'clock in the morning, hawking at insects as they went, but all, in general, coming from up the lake and moving eastward. I saw them only once this year, on June 9th. On this occasion I saw a company of a score hunting leisurely, at high noon, over the Okanogan river. In the evening of the same day a hundred or so gathered, after the manner of Chimney Swifts, to gyrate in social fashion, at a point on the Columbia river twenty miles south from the first ones observed.

VAUX'S SWIFT, *Chaetura vauxii*.—The only point in the country where these birds were noted was at the head of Lake Chelan, where they regularly nested and roosted in the hollow trunks of dead balm trees. □ WHITE-THROATED SWIFT, *Aeronautes melanoleucus*.—A single specimen seen while exploring the cliffs of the Columbia river gorge seems referable to this species. Probably a wanderer from some detached colony recently emigrated to this northern limit of the semi-arid region.—WILLIAM L. DAWSON, *Oberlin, O.*

GENERAL NOTES.

A FOSTER-BROTHER'S KINDNESS.—Sometime during the past summer a friend of mine at Chelan, Wash., secured a fledgling Bullock's Oriole, by rescuing it from the water where it had evidently just fallen from the nest. When taken home it proved a ready pet and was given the freedom of the place. Some two weeks later my friend obtained another nestling oriole from another brood and put it in a cage with the older bird. The newcomer had not yet learned to feed himself but only opened his mouth and called with childish insistence. Judge of the master's delight, and mine as a witness, when the older bird, himself but a fledgling, began to feed the orphan with all the tender solicitude of a parent. It was irresistably cunning and heartsome too, for the bird to select with